



# 2020 Green Bonds Report for the City of Saint Paul

Series 2018D Sewer Revenue Bonds  
Series 2019F Sewer Revenue Bonds  
Series 2020D Sewer Revenue Bonds

OFFICE OF FINANCIAL SERVICES  
Treasury

May 2020

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Paul, MN 55102

## Contents

A Note from the Treasurer .....	2
Annual Reporting Commitment .....	3
Use of Proceeds .....	3
Project Selection.....	4
2018 Sewer Utility Projects .....	5
2019 Sewer Utility Projects .....	6
2020 Sewer Utility Projects .....	7
Project Spending and Environmental Impacts .....	8
Major Sewer Repairs .....	9
Stormwater Quality Improvements.....	10
Sewer Tunnel Rehabilitation.....	11
Sewer Rehabilitation.....	11
Contacts .....	13

## A Note from the Treasurer



Mayor Melvin Carter and the Saint Paul City Council recognize that climate change is a serious threat to the health, safety and quality of life for all residents.

The City of Saint Paul, in partnership with the Great Plains Institute, developed a Climate Action & Resilience Plan adopted by the City Council in December 2019. The plan focuses on achieving carbon neutrality in city operations by 2030 and citywide by 2050. This work includes compiling data on energy use, transportation emissions, solid waste, and water treatment and distribution. Strategies to lessen the impacts of climate change will focus on what residents can do in their daily lives, as well as policy and regulatory actions the City can take, to dramatically reduce greenhouse gas emissions, adapt to the changing climate, and improve quality of life in the city.

One way the City is putting this plan into action is by viewing rain as a resource, not a waste product sent to the Mississippi River through stormwater drains and pipes. By looking at stormwater treatment in innovative ways at development sites, such as CHS Field, the Snelling-Midway redevelopment surrounding Allianz Field and the Ford site redevelopment, the City looks to create vibrant community-building amenities such as green space and water features for all residents and visitors to enjoy.

Since 2015, the City's Office of Financial Services Treasury Division has contributed to the City's efforts on sustainability by giving investors the opportunity to invest directly in environmentally-oriented capital investments through the purchase of "Green Bonds". The City's \$8,700,000 Sewer Revenue Green Bonds, Series 2015B were the first sold in the State of Minnesota, as well as one of the first Green Bond issuances under \$10,000,000. The City has continued to issue Sewer Revenue Green Bonds subsequently every year. This innovative financing tool helps to accomplish the goal of securing the lowest possible cost financing for these important projects, while also advancing the City's goals around sustainability.

In order to provide investors with ongoing information regarding the projects financed by the City's Green Bonds, the Treasury Division is providing this report including details and spending data on projects that have been funded by the City's Green Bonds, and the environmental impact the projects have made.

We hope that you find this report helpful and informative. Thank you for your interest and investment in the City's Green Bond program and sustainability in Saint Paul.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Solomon". The signature is fluid and cursive, written over a light blue horizontal line.

Michael Solomon,  
Treasurer, Office of Financial Services

## Annual Reporting Commitment

The City of Saint Paul (the “City”) intends to report on its Green Bond program at least annually, or until the proceeds of a series have been spent. The City’s Sewer Revenue Bonds, Series 2018D; Sewer Revenue Bonds, Series 2019F; and Sewer Revenue Bonds, Series 2020D, will be referred to herein as the “Green Bonds”.

In the process of issuing the Green Bonds, the City worked with its municipal advisor, Baker Tilly, LLP, to ensure that the program complies with the Green Bond Principles (the “Principles”) as outlined by the International Capital Market Association. The Principles are voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market. The Principles include the following four components:

1. Use of proceeds
2. Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

This report shows spending through year end December 31, 2019, and includes financing data for projects in 2020, unless noted otherwise.

## Use of Proceeds

The City’s annual capital improvement and maintenance plan places a priority on sanitary and storm sewer improvement projects for aging infrastructure that are most likely to allow for exfiltration of untreated wastewater from the infrastructure, inflow and infiltration of clean water into the system, and untreated storm water into the environment.

The City has determined that the projects funded by the Green Bonds meet two categories:

1. **Sustainable Waste Management** (e.g. reducing the exfiltration of contaminated wastewater into the ground or reducing the risk of sewage back-up into the environment)
2. **Sustainable Water Management** (e.g. reducing the amount of clean water entering sewer systems or improving/adding new water treatment systems)

The Green Bonds are secured solely by revenues of the City’s Sewer Utility. The table below gives an overview of the proceeds deposited and actual spending for the Green Bonds. Net Proceeds Deposited is the amount of the bond series deposited into the construction account. Actuals is the total amount of bond proceeds spent on expenses for the designated construction projects.

<b>Bond Issuance</b>	<b>Net Proceeds Deposited</b>	<b>Actuals (YE 2019)</b>	<b>Ending Balance*</b>
Sewer Revenue Bonds, Series 2018D	\$7,874,687	\$7,874,687	-
Sewer Revenue Bonds, Series 2019F	\$8,003,628	\$1,627,562	\$6,376,066
Sewer Revenue Bonds, Series 2020D	\$8,000,000	-	\$8,000,000

\*Bonds will be drawn down to a de minimis amount.

The City has established processes and procedures to ensure the segregation of all bond proceeds from other city funds. In accordance with the Green Bond resolutions and IRS regulations, the proceeds from the Green Bonds have been deposited into segregated project accounts to be drawn upon to finance the costs of the individual projects.

## **Project Selection**

The City owns and maintains approximately 804 miles of sanitary sewer and 450 miles of storm sewer, located in public streets, alleys, or easements. Most of the sanitary sewer system was constructed during the period 1887 to 1958, meaning that most of the system is at least 50 years old and nearly half of it is 75-125 years old.

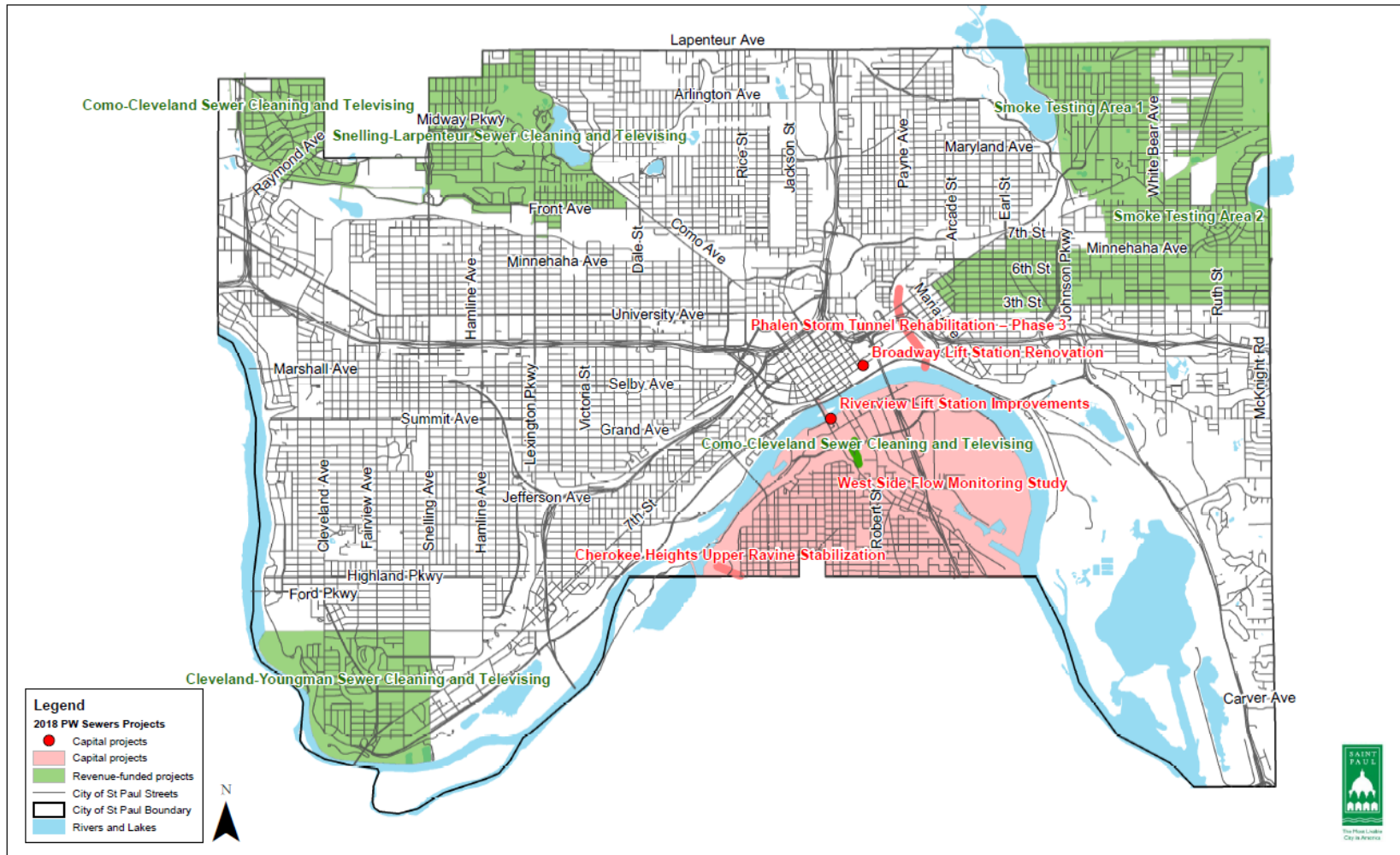
Projects are identified via a variety of testing processes and procedures, such as safety testing, video monitoring and manual inspections—portions of which were also financed by the bonds. Testing lasts about 30 minutes, and simulated smoke may be seen coming from manhole covers, storm drains, roof vents and building foundations. The sanitary sewer cleaning and televising program has a goal to clean and inspect approximately 80 miles of sanitary sewers, including manholes, each year. The program helps to evaluate pipes so that any necessary maintenance, repair or replacement can be scheduled to minimize unexpected problems and emergency repairs.



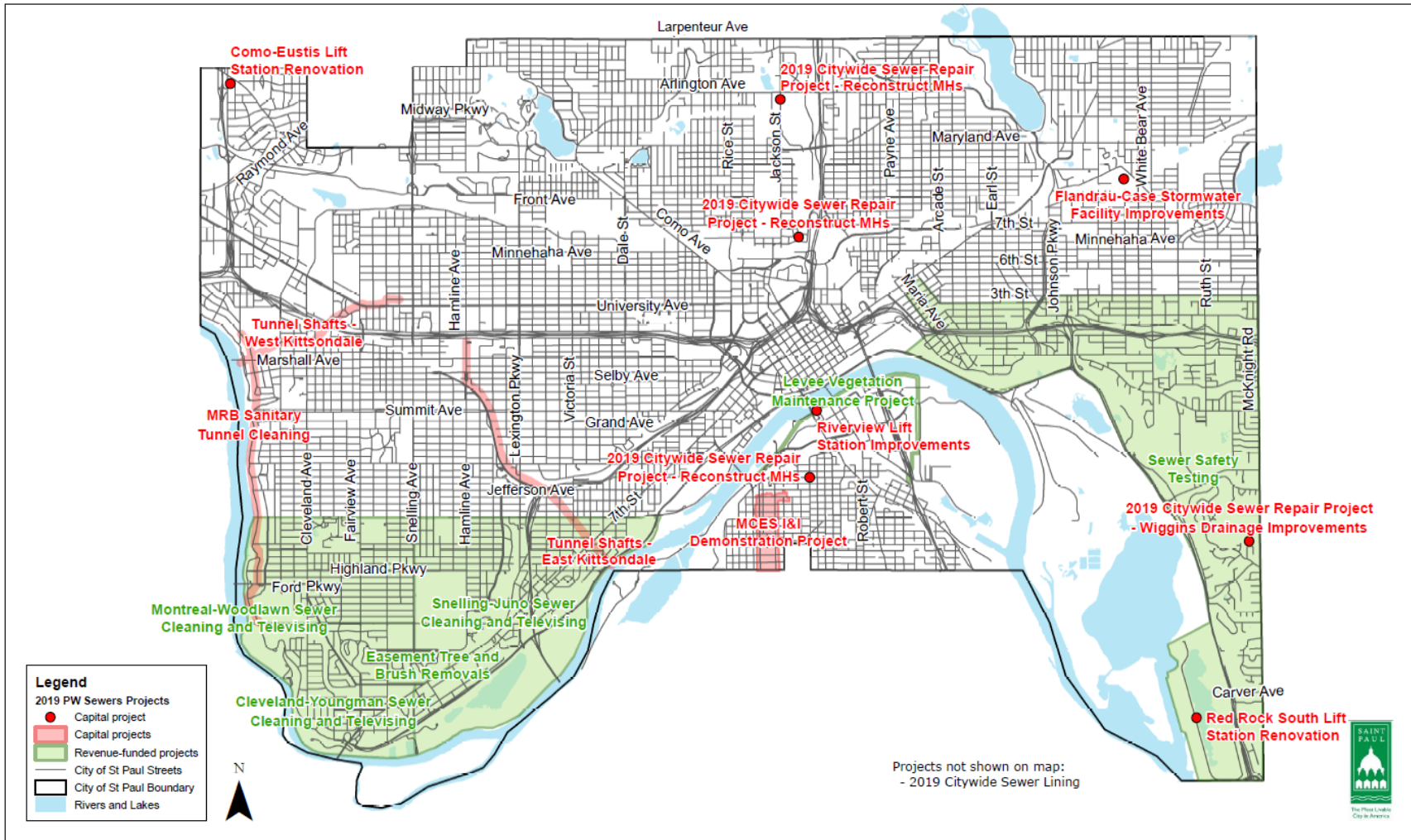
The projects financed include major sanitary sewer repairs and rehabilitation work as well as storm water tunnel rehabilitation and treatment improvements. The objectives of these projects include the proper segregation of wastewater from the environment, reduction of clean water entering the sanitary sewer system and the reduction of polluted storm water entering the environment, especially local bodies of water.

The projects selected are located in many areas across the City, as shown on the project area maps that follow.

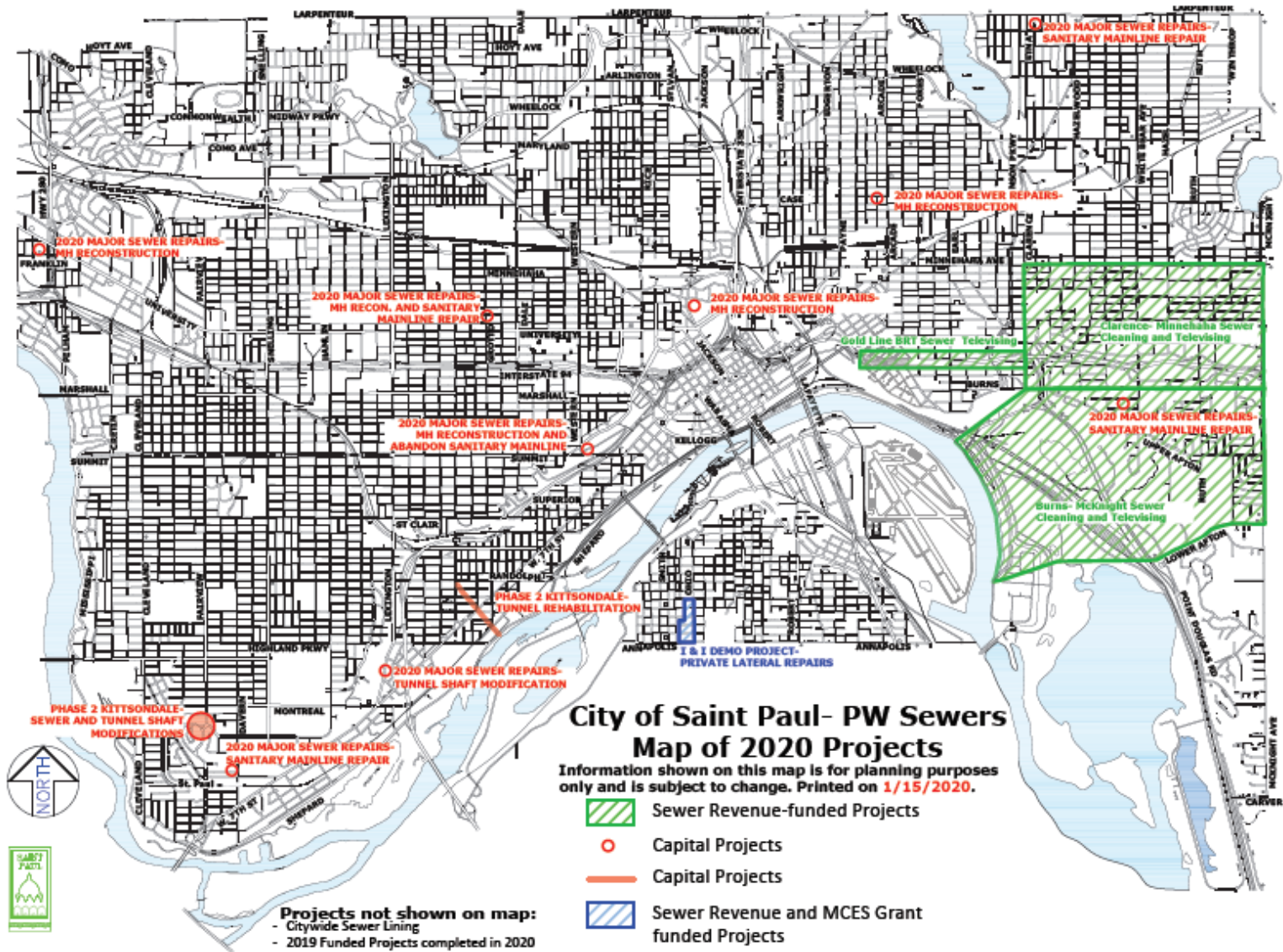
# 2018 Sewer Utility Projects



# 2019 Sewer Utility Projects



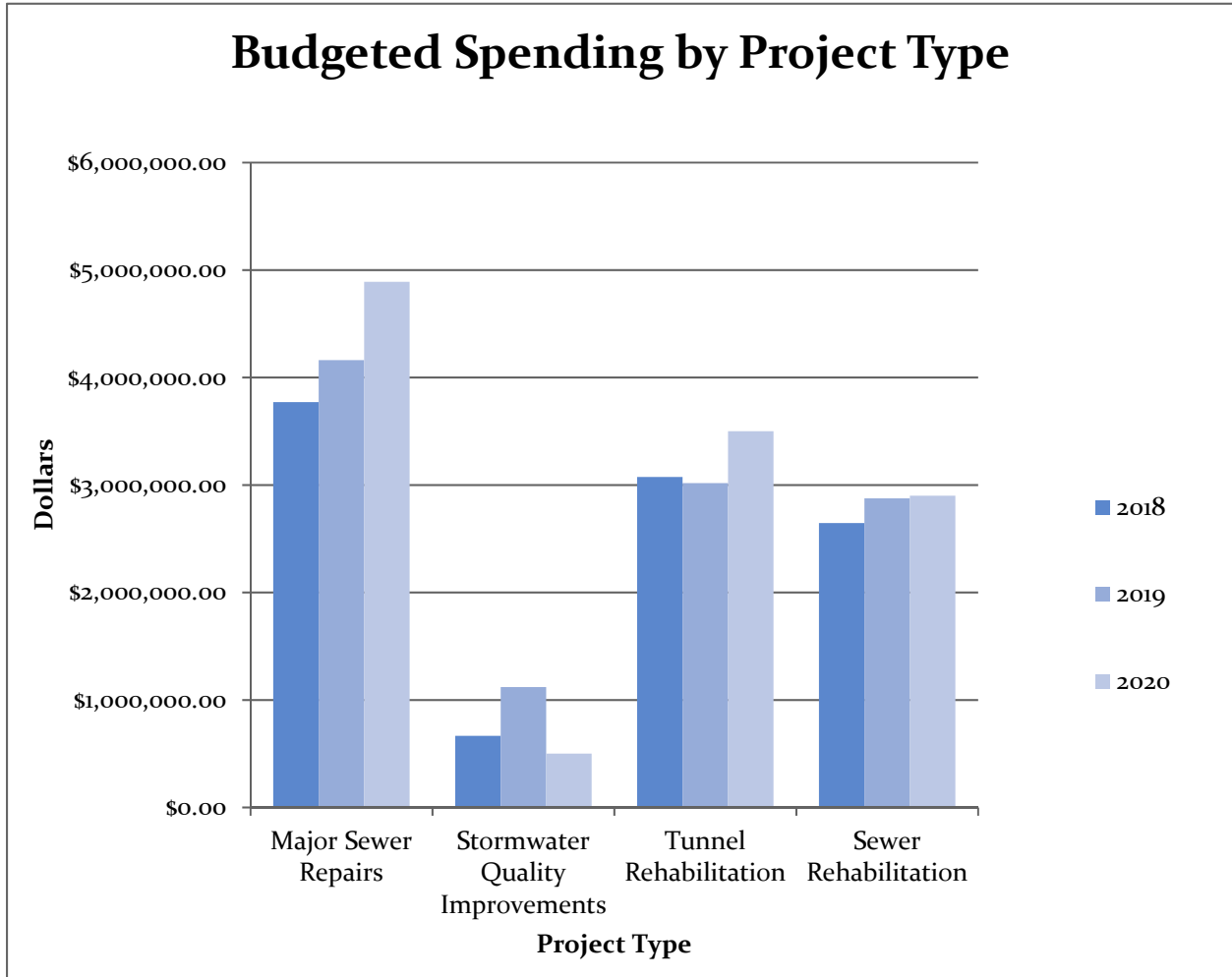
## 2020 Sewer Utility Projects





## Project Spending and Environmental Impacts

The Green Bonds were anticipated to be spent on the project categories shown on the chart below.



Actual project spending and environmental impacts are shown through January 31, 2020, in the tables below.

## Major Sewer Repairs

Bond Issue	Project	Actuals	Project Status	Project Description & Environmental Impact
2018D	Coordination with City Street Projects	\$894,576	In Progress	Replace brick sanitary manholes with new pre-cast concrete, replace broken City sewer piping and outside drops, abandon un-used City sewers, and increase storm sewer mainline sizes to preserve street pavement life, reduce amount of clear water entering sewer systems, reduce sewage back-up risks, reduce street flooding risks.
2018D	Broadway Lift Station Renovation	\$1,952,829	Completed	Replace control cabinet, process piping and valves, pumps, and electrical components; Install safety grates on wet well hatches; Relocate electrical equipment and controls to higher river flood elevation; Install natural gas backup power generator. These changes will reduce sewage back-up risks and improve ability to maintain sewer service during Mississippi River flooding events.
2018D	Citywide Sewer Repair Project	\$79,134	Project Cancelled	Re-construct broken City sewers and manholes to reduce sewage exfiltration into the ground, and reduce sewage back-up risks.
2019F	Coordination with City Street and County Road Reconstruction Projects	\$113,054	In Progress	Replace and rehabilitate brick manholes, replace broken City sewer piping, and replace private sanitary sewer services within public right-of-way to preserve street pavement life, reduce amount of clear water entering sanitary sewer systems, reduce sewage back-up risks, reduce street flooding risks, and to reduce sewage exfiltration into the ground.
2019F	Como-Eustis Lift Station Renovation Project	\$392,997	In Progress	Replace control cabinet, process piping and valves, pumps, and electrical components; install safety grates on wet well hatches; and install natural gas backup power generator. This will reduce sewage back-up risks and increase pump station reliability.
2019F	Red Rock Lift Station Renovation Project	\$503,575	In Progress	Replace control cabinet, process piping and valves, pumps, and electrical components; install safety grates on wet well hatches; and install natural gas backup power generator. This will reduce sewage back-up risks and increase pump station reliability.
2019F	2019 Citywide Sewer Repair Project	\$303,915	In Progress	Reconstruct broken City sewers and manholes to reduce sewage exfiltration into the ground and reduce sewage back-up risks.

<b>Bond Issue</b>	<b>Project</b>	<b>Actuals</b>	<b>Project Status</b>	<b>Project Description &amp; Environmental Impact</b>
2020D	2020 Major Sewer Repair Citywide	-	Not Started	Replace and repair aging and broken City sewers and manholes, and private sewer service laterals via city, county street reconstruction projects. This will reduce sewage exfiltration into the ground and reduce sewage back-up risks.
2020D	2020 Citywide Sewer Repair Projects	-	Not Started	Replace and repair aging and broken City sewers and manholes. This will reduce sewage exfiltration into the ground and reduce sewage back-up risks.

### Stormwater Quality Improvements

<b>Bond Issue</b>	<b>Project</b>	<b>Actuals</b>	<b>Project Status</b>	<b>Project Description &amp; Environmental Impact</b>
2018D	Cherokee Heights Upper Ravine Stabilization Project	\$899,797	In Progress	Stabilize about 500-feet of ravine by regrading and armoring with riprap. Install pretreatment structures to collect gross pollutants from public streets. This will reduce the amount of polluted storm water from entering the Mississippi River.
2019F	Suburban Pond Cleaning Project	\$111,380	Completed	Clean Suburban Pond at storm outfall locations to reduce risk of street flooding and preserve storm sewer capacity, and reduce transport of storm sediments further downstream.
2019F	Flandrau Stormwater Quality Improvements	\$42,033	On Hold	Modify existing stormwater ponding facility, including: increase storage capacity and construct iron enhanced sand filter. This will help preserve capacity of downstream storm sewer system and improve water quality benefits of stormwater ponding facility.
2020D	2020 Stormwater Quality Improvement	-	Not Started	Clean, repair, improve existing city storm water management facilities.

## Sewer Tunnel Rehabilitation

Bond Issue	Project	Actuals	Project Status	Project Description & Environmental Impact
2018D	Phalen Creek Interceptor Rehab, Phase 3	\$2,642,973	Complete	Rehab sections of Phalen storm tunnel originally constructed in the 1890s. Replace about 400-feet of brick invert with reinforced concrete invert, Seal tunnel liner cracks and fractures, Concrete patching and repairs, Repair defective manholes. This will extend service life, improve access for inspections/maintenance, reduce risk of sewage back-ups, reduce risk of tunnel collapse.
2018D	St. Peter-Rondo Storm Tunnel Rehab	\$147,222	Complete	Repair and stabilize broken St Albans branch tunnel liner by installing stainless steel plating and grouting of voids behind tunnel liner. This will stop ground water and soil materials from entering and further destabilizing the storm tunnel. Also sealed and plugged leaking tunnel liner cracks and holes to mitigate further risks and before the repairs become more expensive.
2019F	MRB Sanitary Tunnel Cleaning Project	\$1,204	In Progress	Remove sanitary sewage sediments from deep tunnel to further inspect tunnel and help preserve capacity. This will remove sanitary sediments to preserve capacity and an inspection will determine tunnel condition.
2019F	Tunnel Shaft Project	\$159,904	In Progress	Construct large tunnel access shafts to facilitate future tunnel repairs will extend service life, improve access for future inspections/repairs, reduce risk of tunnel collapse and sewer back-ups.
2020D	Phase 2 Kittsondale Storm Tunnel	-	Not Started	Repair East Kittsondale tunnel, including tunnel void grouting, concrete patching, and crack sealing.

## Sewer Rehabilitation

Bond Issue	Project	Actuals	Project Status	Project Description & Environmental Impact
2018D	Citywide Sewer Lining Projects	\$1,272,305	In Progress	Lining of aging and defective Sewer pipes with cured in place pipe lining will extend sewer service life, reduce amount of sewage exfiltration into ground, reduce risk of sewer back-ups, reduce amount of clear water (rain & ground water) entering the sanitary sewer system that does not need to be treated by wastewater treatment plant (thereby reduces treatment costs).

Bond Issue	Project	Actuals	Project Status	Project Description & Environmental Impact
2019F	2019 Citywide Sewer Lining Project	-	In Progress	Lining of aging and defective Sewer pipes with cured in place pipe lining will extend sewer service life, reduce amount of sewage exfiltration into ground, reduce risk of sewer back-ups, reduce amount of clear water (rain & ground water) entering the sanitary sewer system that does not need to be treated by wastewater treatment plant (thereby reduces treatment costs).
2020D	2020 Citywide Sewer Lining Project	-	Not Started	Lining of aging and defective Sewer pipes with cured in place pipe lining. Extend sewer service life, reduce amount of sewage exfiltration into ground, reduce risk of sewer back-ups, reduce amount of clear water (rain & ground water) entering the sanitary sewer system that does not need to be treated by wastewater treatment plant (thereby reduces treatment costs).

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City of Saint Paul Investor Relations website: <https://www.stpaulbonds.com/>

*The material provided in this report is intended to be informational reporting of project spending of the City of Saint Paul's Green Bonds and is not intended to provide investment advice or professional assessment of project impacts.*